Steve Dixon

From: "Wayne Wambold" <wwambold@sehinc.com>

To: <steveo@fnal.gov>

Cc: "Jeff Davis" <jdavis@sehinc.com>; "Kelly Bettendorf" <kbettendorf@sehinc.com>

Sent: Monday, September 26, 2005 3:42 PM

Attach: 69080001.pdf

Subject: NOvA Off Axis Detector

Steve:

The drilling at the Orr-buyck Road site was completed on Thursday Sept. 22nd. I have received field boring logs. They are attached for your reference. The following summarizes the findings for OB1 and OB2. Note that OB1 is approximately 15 feet higher in elevation, based on my interpolation of the USGS contour map for the area.

Granite bedrock was encountered at a depth of 5' at OB1 (approx. el. 1370+/-5) and 15' at OB 2 (approx. el. 1345+/-5). The bedrock surface slopes downward at a grade of roughly 9% from OB1 to OB2. Fifty feet of rock core was obtained at each boring. All cores had 100% recovery and, although we don't have RQD for each core, it is my understanding the RQD is very near 100% as well. The overburden consists of silty sand and sand with silt. Gravel and cobbles were present in the overburden.

A monitoring well was set at OB1. I am not certain whether the true groundwater level will be reflected since the drilling was completed using water. It is likely artificially high until it drains out or is bailed down and allowed to recover. Water was encountered in the overburden at a depth of 10 feet at OB2. This is likely perched on top of the rock; however, will need to be verified during the final investigation.

The packer test was completed at a depth of 40' to 45' in OB2. In the first minute the hole took 10 gallons at a pressure of 30 psi. However, no water entered the formation during the remaining 14 minutes of observation. More of these tests would be prudent once the final site and building elevation is set.

Wayne S. Wambold, PE Senior Geotechnical Engineer SEH - St. Paul 651.490.2108



FAX TRANSMISSI

AMERICAN ENGINEERING TESTING, INC. 550 CLEVELAND AVENUE NORTH

ST. PAUL, MN 55114 (651) 659**-900**1

Fax: (651) 659-1379

To:	WATNE WAMBOLD Date:	<u> 4/26/05</u>
Company:		
Fax No.:	651-490-2150 From	
Phone No.:	Phone	
	AET.	lob No.
Subject:	FIELD LOGS OFF- AX	15 517=
Comments:	. Any QUESTIONS, PLE	BE CALL
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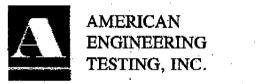


SUBSURFACE FIELD BORING LOG

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